

a) contacting a protein comprising a site for post-translational modification with the enzyme;

Q1
b) providing a labelled first binding partner which binds to the protein in a manner dependent on the post-translational modification of the protein by the enzyme and which generates a signal in a manner dependent on said post-translational modification, and a second labelled binding partner which binds to said protein;

c) contacting the protein with the labelled first binding partner and the labelled second binding partner and determining the post-translational modifying activity of the enzyme.

4. (Amended) The method of claim 1 or 2, wherein the protein is immobilised on a solid phase substrate.

Q2
5. (Amended) The method of claim 1 or 2, wherein the second binding partner is a capture ligand, and said protein that binds to said capture ligand is isolated from said protein that does not bind to said capture ligand.

6. (Amended) The method of claim 5, wherein said capture ligand is bound to a solid phase substrate.

7. (Amended) The method of claim 1 or claim 2, wherein at least one of said first or second binding partner is labeled with a label selected from the group consisting of a fluorescent label, a chemiluminescent label, a domain of an enzyme, a radiolabel, a chemical or enzymatic label and a heavy metal label.

Q3
10. (Amended) The method of claim 1 or 2, wherein both said first and second binding partners are fluorescently labelled, and the binding of said binding partners to the protein is assayed by fluorescence resonance energy transfer (FRET).

11. (Amended) The method of claim 8, wherein both said first and second binding partners are labelled, with enzyme domains, which associate to form a functional receptor molecule when both binding partners are bound to the protein.

Sub 12
G4
~~13. (Amended) The method of claim 1 or 2, wherein unbound labelled first binding partner is removed to allow detection of the binding of the labelled first binding partner to the protein.~~

14. (Amended) The method of claim 8, wherein the labelling of the protein by the binding of said first binding partner is detected by fluorescence correlation spectroscopy (FCS).

Sub 13
G5
~~19. (Amended) A kit for the determination of the conformational state of a protein in a sample, comprising:~~

~~a) a labelled first binding partner which binds to the protein in a manner dependent on the conformational state of the protein and is detectable in a manner dependent on its binding to the protein, and a labelled second binding partner, wherein said protein and said first binding partner are not covalently coupled; and~~

~~b) packaging components.~~

20. (Amended) A kit for the determination of the presence of a ligand for a protein in a sample, comprising:

a) a protein which binds to the ligand the presence of which is to be determined and which undergoes a conformational change as a result of such binding;

b) a labelled first binding partner which binds to the protein in a manner dependent on the conformational state of the protein and is detectable in a manner dependent on its binding to the protein and a labelled second binding partner, wherein said protein and said first binding partner or said second binding partner are not covalently coupled; and

c) packaging components.

G6
22. (Amended) The kit of claim 21, wherein at least one of the first or second binding partner is labelled.

REMARKS

Claims 1, 2, 4-8, 10-14 and 19-22 are pending as a result of this amendment.

Rejection of Claims 1-14 and 20-22 under 35 U.S.C. § 112, second paragraph

Claims 1-14 and 20-22 are rejected under 35 U.S.C. § 112, second paragraph for alleged indefiniteness.